

DETAILED ACTION

Acknowledgment

1. This Office Action is responsive to the Amendment filed on 12/03/2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery, Jr. (US 6,492,897; art of record).

Regarding claims 17 and 19, Mowery, as shown in figures 1-7, teaches a system for coupling wireless signals to and from a power transmission line communication system comprising electric power wire (27), electric power outlet (28), ultra-wideband transmitter and receiver (24, 58). The coupling system of Mowery supports plurality of modulation techniques including UWB to communicate to and from the power line or power grid, which includes transformer (37), transmission substation (39), and distribution substation (38), through the interface (58) (bridge). See also column 6, lines 38 to column 17, line 7.

Mowery fails to particularly teach communications around or bypassing a transformer or power grid. However, Mowery, as disclosed at column 15, lines

51-55, also suggests that the communication system can be attached around the power transmission line.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Mowery for selectively communicating the UWB signals around or bypassing a transformer or power grid if desire since Mowery suggests attaching the system around the power transmission line. Moreover, it is noted that the independent claim 17 recites the UWB devices "positioned adjacent" to the power grid apparatus and the UWB devices "structured to selectively receive and transmit a plurality of ultra-wideband pulses so that the power grid apparatus is bypassed." Of course, the communications between the UWB will bypass the power grid apparatus if the power grid apparatus is not connected (positioned adjacent, i.e. does not provide any useful purpose to the devices) to the UWB devices in the Mowery's system. In addition, the newly added limitations of "wherein the power grid apparatus is selected from a group consisting of: a transmission substation, a distribution substation, an industrial substation, a pad transformer, a pole transformer, and a residential transformer" to claim 17 does not further limit the scope of the claim since it is just further limit the power grid apparatus, which is meaningless to the communications between the UWB devices.

Regarding claims 20 and 21, Mowery teaches all subject matter claimed except for specify the duration of the UWB pulse (claim 20) and the power ranging (claim 21) as claimed. However, to communicate the UWB pulse having

the claimed duration and power is only a matter of selecting the operational parameters for a system's need and thus, would not involve any inventive features. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Mowery for communicating the UWB pulse having the claimed duration and power as long as it is still in accordance with the UWB time domain based technology (column 11, lines 11-28) since it is just one of the range that the UWB signals can be communicated.

4. Claims 1-3, 5-17 and 19-21 (Note that, claims 17 and 19-21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery, Jr. (US 6,492,897; art of record) as stated in paragraph 3 above) are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery, Jr. (US 6,492,897; art of record) in view of Cope et al (US 6,998,962; newly cited art).

Regarding claims 1, 5-11, 14-17 and 19, Mowery, as shown in figures 1-7, teaches a system for coupling wireless signals to and from a power transmission line communication system comprising electric power wire (27), electric power outlet (28), ultra-wideband transmitter and receiver (24, 58). The coupling system of Mowery supports plurality of modulation techniques including UWB to communicate to and from the power line or power grid, which includes transformer (37), transmission substation (39), and distribution substation (38),

through the interface (58) (bridge). See also column 6, lines 38 to column 17, line 7.

Mowery fails to particularly teach communications around or bypassing a transformer or power grid. However, Mowery, as disclosed at column 15, lines 51-55, also suggests that the communication system can be attached around the power transmission line. Moreover, Cope, from the same field of endeavor and as shown in figures 2-4, teaches communicating signals over power line having transformer in which the signals are bypassing the transformer in order to avoid the effects of the transformer onto the communicated signals. See Cope: column 2, lines 10-56; column 4, lines 31-41; column 6, lines 37-55; column 7, lines 45-53; and column 8, lines 12-23.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Mowery for selectively communicating the UWB signals around or bypassing a transformer or power grid since Mowery suggests attaching the system around the power transmission line and in order to prevent the effects of the transformer onto the communicated signals as taught by Cope et al.

Regarding claims 2, 3, 12, 13, 20, and 21, Mowery teaches all subject matter claimed except for specify the duration of the UWB pulse (claims 2, 12 and 20) and the power ranging (claims 3, 13 and 21) as claimed. However, to communicate the UWB pulse having the claimed duration and power is only a matter of selecting the operational parameters for a system's need and thus,

would not involve any inventive features. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination system of Mowery and Cope for communicating the UWB pulse having the claimed duration and power as long as it is still in according with the UWB time domain based technology (Mowery: column 11, lines 11-28) since it is just one of the range that the UWB signals can be communicated.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 9, 14 and 17 have been considered but are moot in view of the new ground(s) of rejection. See explanation of paragraphs 3 and 4 above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don N. Vo whose telephone number is (571) 272-3018. The examiner can normally be reached on Mon-Fri (9:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOHAMMAD GHAYOUR can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Don N. Vo/
Primary Examiner, Art Unit 2611